

DURANGO REPORTS 107.68 METERS OF 38.85 GPT GALLIUM, 701 GPT RUBIDIUM, 24.98 GPT CESIUM, AND 3.61 GPT THALLIUM FROM SURFACE IN DIAMOND DRILLING AT NMX EAST CRITICAL METALS PROJECT

Vancouver, BC / TheNewswire / December 16, 2024 – Durango Resources Inc. (TSX.V: DGO) (Frankfurt: 86A1) (OTCQB-ATOXF) ("Durango" or the "Company") is pleased to report that it has re-examined its drill core assays at the NMX East critical metals project in the James Bay region of Quebec and has discovered elevated and consistent gallium, rubidium, thallium, and cesium in all four holes. Notably, the Company intersected 107.68 meters of 38.85 grams per tonne ("gpt") gallium, 701.03 gpt rubidium, 24.98 gpt cesium and 3.61 gpt thallium from surface in hole 3.

The Company's maiden 4-hole drill program at NMX East totaled approximately 800 meters and was initiated to test one of five visually confirmed pegmatite outcrops on the property. The "A" pegmatite target drilled is central to the property and remains open in all directions. Hole 1 is located approximately 700 meters from holes 3 and 4 which were drilled from the same drill pad setup. Hole 2 also encountered consistent mineralization at depth. Multiple anomalous critical and rare earth elements were intersected. A drill map (Figure 1) and summary table for each drill hole with notable intervals are provided below (Tables 1 to 4). The full table of results is available here: https://durangoresourcesinc.com/projects/nmx-east-quebec/



Fig. 1 NMX East Critical Metals Project Drill Map



Summary of All Holes - NMX East Critical Metals Project Assayed Intervals with average Ga, Rb, Cs, Tl (grams per tonne - gpt) NOTE – all drillholes were angled - hole depths are not true depths

			Rubidium	Cesium	Thallium
Depth	Width	Gallium (gpt)	(gpt)	(gpt)	(gpt)
		NOT ASSAYED			
0 to 33.67m	33.68m				
33.68 to 35.51m	1.83m	22.33	404.00	38.37	2.40
35.52 to 83.99m	48.47m	NOT ASSAYED			
84 to 94.81m	10.81m	33.10	491.00	16.29	2.64
94.82 to 97.16m	2.34m	NOT ASSAYED			
97.17 to 111.21m	14.04m	32.27	626.67	23.58	3.36
111.22 to 114.86m	3.64m	NOT ASSAYED			
114.87 to 118.76m	3.89m	32.00	416.50	26.00	23.33
118.77 to 130.77m	12.00m	NOT ASSAYED			
130.78 to 131.58m	0.80m	16.00	88.00	3.30	0.50
131.59 to 137.99m	6.40m	NOT ASSAYED			
138 to 147.64m	9.40m	15.71	64.86	4.04	0.34
147.65 to 207m	59.35m	NOT ASSAYED			

Table 1. HOLE 1

Hole Total Depth 207m



		Galliu	Rubidium	Cesium	Thallium	
Depth	Width	m (gpt)	(gpt)	(gpt)	(gpt)	
		NOT ASSAYED				
0 to 214.82m	214.82m					
214.83 to 235.72m	20.89m	27.25	355.00	30.25	2.26	
		NOT ASSAYED				
235.73 to 259.5m	23.77m					
259.6 to 264.87m	5.27m	26.60	684.00	29.3	3.66	
264.88 to 267.62m	2.74m	NOT ASSAYED				
267.63 to 274.83m	7.20m	28.75	613.00	23.63	3.34	
274.84 to 278.60m	3.76m	NOT ASSAYED				
278.61 to 284.36m	5.64m	27.50	650.00	21.13	3.52	
284.37 to 291.90m	7.53m	NOT ASSAYED				
291.91 to 297.69	5.78m	27.80	546.80	17.26	2.90	
297.70 to 300m	2.30m	NOT ASSAYED				

Table 2. HOLE 2

Hole total depth 300m

Table 3. HOLE 3

		Gallium	Rubidium	Cesium	Thallium
Depth	Width	(gpt)	(gpt)	(gpt)	(gpt)
		NOT ASSAYED			
0 to 8.91m	8.91m				
8.92-116.5m	107.58m	38.85	701.03	25.70	3.61
		NOT ASSAYED			
116.6 to 128.50m	11.90m				
400 54 1 400 00	5.24	20.40	40.4.40	20.46	2.42
128.51 to 133.82m	5.31m	28.40	484.40	28.46	2.48
2		NOT ASSAYED			
133.83 to 140.28m	6.45m				
140.29 to 151.74m	11.45m	33.09	469.27	21.56	2.41
		NOT ASSAYED			
151.75 to 201.00m	49.25m				

Hole Total Depth 201m



Table 4. HOLE 4

Denth	Width	Gallium (gnt)	Rubidium (gnt)	Cesium (gnt)	Thallium (gpt)
Deptil					
		NOT ASSAYED			
0 to 6.57	6.57m				
6.58 to 27.50m	20.92m	18.19	386.48	33.75	7.45
		NOT ASSAYED			
27.6 to 102m	74.40m				

Hole Total Depth 102m

The Company prioritized assaying the pegmatite drill core as the drill program was focused on lithium. Lithium and critical & strategic minerals were encountered in pegmatite, diorite and metabasite rock types and all rock types equally demonstrated consistent mineralization. The Company theorizes this could be a halo effect from the pegmatites, but questions remain. As such, the Company believes significant intervals in various holes now warrant further review and assay. The table of results summarizes the intervals and indicates the sections that were assayed and where un-assayed intervals remain.

The drill results suggest further investigation of all known and potentially more unknown pegmatite occurrences on the property are warranted. This may include revisiting all existing historical and geophysical data, as well as leveraging the Company's new AI exploration technology to define and refine the Company's understanding of this critical metal bearing property. A summary of intended future work for NMX is outlined below.

Assay QA/QC

Drill core was collected from the diamond drill and placed in sealed core trays for transport to the core logging and cutting facility. The core was then logged, and samples were selected based on lithology, in intervals of up to 1.0 m and cut in half length wise with a diamond saw. Samples were then bagged in plastic bags and shipped to Activation Laboratories in Ancaster Ontario for multi-element analysis. QA/QC samples were included in the shipment and comprised of certified reference material standards, blank material and requests for duplicate analysis. All QAQC samples were reviewed by project geologist Melanie Mackay PGeo.

Future Work Plans for the NMX East Critical Metals Project

- Drill core review core is currently in storage and accessible anytime.
- Assay of untested sections or drill core from inaugural drill program.
- Minerology XRD and electron microprobe.
- Metallurgical testing of drill core.
- Geophysics review.
- Al exploration and interpretation of geophysical anomalies for potentially unknown targets as well as further definition of known targets.
- Geophysical mapping of all pegmatite targets.
- Follow up drilling on the Pegmatite "A" area.



Geopolitical Developments

On December 3rd, 2024, China announced an immediate ban on the export of multiple critical metals to the United States. (see article <u>China bans export of critical minerals to US as trade tensions escalate | Reuters</u>) China currently produces approximately 98% of the world's raw gallium so this ban is expected to have significant implications for global supply and pricing of this and other critical metals.

Given this recent ban surrounding gallium, the Company revisited the NMX East project and has reconsidered these drill results over the past several days. The Company believes this geopolitical news underscores the urgency for both Canada, the United States and the West collectively, to discover, develop, and protect viable domestic sources of these critical metals in the near term. Critical metals fuel many strategic, defense and future technology sensitive applications, and Durango intends to contribute at the forefront of helping fulfill this important need.

For example, the Company is taking actionable movements to help support Western demand for these minerals by fast tracking property analysis with the aid of artificial intelligence ("AI"). This work is already helping unlock new areas of interest in the portfolio, new hypotheses, and potential drill target areas.

Marcy Kiesman, President of Durango stated, "Until recently we had not entertained the potential of the gallium space. However, due to the increase in geopolitical tensions and the escalation of trade wars surrounding the world's critical metals, Durango is now prioritizing the development of critical mineral resources and will continue reviewing its properties for these essential materials. The importance of securing a domestic supply of these metals is top priority. The Company is looking to fast track the development of our current projects and expand our portfolio as appropriate."

NMX East Gallium Comparable

The Cordero Deposit in Nevada is possibly the only primary gallium project with a well-defined resource (15 Mt at 47.7 ppm gallium). Gallium mineralization here is associated with low-sulfidation epithermal silvermercury deposits, with Ga hosted in alunite $(KAI(SO_4)_2(OH)_6)$ and other aluminous phosphate minerals.

Source: https://www.geologyforinvestors.com/gallium-the-unicorn-of-critical-mineral-deposits/

About Gallium

Gallium, a critical component in semiconductors, telecommunications, renewable energy sectors and may also be considered as a possible heat exchange medium in nuclear reactors. Canada and the USA rely on gallium for telecommunications, defense, and green energy. Gallium is also used in semiconductors, AI circuitry, radar and microchips and could be more critical than previously realized.

Source:<u>https://www.metaltechnews.com/story/2022/09/12/critical-minerals-alliances-2022/gallium-may-be-more-critical-than-realized/1087.html</u>

Gallium Market Size and Growth:

1. Market Size

In 2023, global high-purity gallium production was estimated at 320 tonnes, with total primary production capacity reaching 1,100 tonnes per year. Demand for gallium is projected to grow due to its role in



semiconductors, 5G technology, and renewable energy applications.

- 2. *Key Applications:*
- Semiconductors: Gallium arsenide (GaAs) and gallium nitride (GaN) are critical in chips for smartphones, satellite communications, and defense systems.
- Renewable Energy: GaN is used in solar cells and LEDs.
- Emerging Technologies: Gallium is a key component in next-generation technologies such as quantum computing, 5G networks, and advanced radars.

3. *Geopolitical Considerations*:

China has imposed export controls on gallium, exacerbating supply chain challenges for the U.S. and its allies. These restrictions are part of a broader trade conflict over critical technologies. Countries like the USA are ramping up efforts to develop domestic gallium sources and processing capabilities to reduce reliance on China.

Sources:

https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-gallium.pdf

<u>https://www.usgs.gov/news/national-news-release/usgs-critical-minerals-study-bans-gallium-and-germanium-exports-could</u>

https://www.metaltechnews.com/story/2024/11/20/tech-metals/tech-metals-bans-could-cost-usbillions/2040.html

About Rubidium

Today most rubidium is obtained as a byproduct of lithium and since it is easily ionized it can be used to propel spacecraft engines (ion). Rubidium's critical role in emerging technologies and its limited supply make it a valuable strategic resource.

Rubidium Market Size, Growth Outlook, and Applications

1. Market Size and Growth:

Rubidium is a niche market, with an estimated global annual consumption of less than 2,000 kilograms, primarily for high-tech applications. Prices for high-purity rubidium compounds are significant, often exceeding \$1 million per tonne for rubidium oxide, driven by its rarity and specialized uses.

- 2. Applications:
- Specialty Glass: Used in fiber optics and night-vision technology.
- Telecommunications: Serves as an atomic frequency standard in GPS systems.
- Quantum Computing: Ultra-cold rubidium atoms play a key role in quantum research.
- Batteries: Potential use in sodium-ion batteries, an emerging alternative to lithium-ion technology.
 - 3. *Growth Drivers*:



Advances in quantum computing and demand for robust, low-temperature battery technologies are expected to boost rubidium consumption. The inclusion of rubidium on critical minerals lists highlights its strategic importance, especially as global reliance on China's supply raises supply chain concerns.

4. Geopolitical Factors:

China's dominance in rubidium production and recent export restrictions have prompted countries like the U.S. and Australia to accelerate exploration and development of domestic resources.

Sources:

https://www.mordorintelligence.com/industry-reports/rubidium-market

https://www.imarcgroup.com/rubidium-market

https://www.marketresearch.com/OG-Analysis-v3922/Rubidium-Outlook-Size-Shares-Data-36046807/

About Thallium

Thallium is a critical element and is used for semiconductors, radiation detection equipment, temperature measurements, MRI, and electric power generation and transmission <u>Thallium Statistics and Information</u> <u>U.S. Geological Survey</u>. The average crustal abundance of thallium worldwide is 0.001ppm which makes it extremely rare and increasingly in demand.

Thallium Market Size and Growth Outlook

1. Market Size:

Global production of thallium was approximately 10 tonnes (10,000 kilograms) in 2023, reflecting its status as a niche critical metal. Thallium prices remain high due to limited supply and demand in specialized markets, ranging from \$7,600 to \$9,400 per kilogram depending on purity and form.

- 2. Growth Drivers:
- Demand in Advanced Technologies:
- Used in gamma radiation detectors, infrared optics, and acousto-optical filters.
- Plays a role in research for high-temperature superconductors and optoelectronics.
- Medical Applications:
- Radioactive thallium isotopes are used in cardiovascular imaging and cancer treatment.
- Critical Metal Designation:
- Thallium's designation as a critical material by many nations underscores its strategic importance.

Applications for Thallium

- Electronics: Used in semiconductors, photoelectric cells, and superconducting materials.
- Medical Imaging: Thallium isotopes are crucial for nuclear medicine and diagnostic imaging.
- Specialized Glass: Enhances the refractive index of optical glass for advanced lenses.
- Radiation Detection: A key component in gamma-ray scintillators for nuclear monitoring



Melanie Mackay, PGeo, EGBC (Engineers and Geoscientists British Columbia) 35256, APEGA (Association of Professional Engineers and Geoscientists of Alberta 305012), is a director and qualified person for Durango and approves the technical content of this news release.

Sources:

https://winmarketresearch.com/home/goods/detail/id/2943804.html

https://reports.valuates.com/market-reports/QYRE-Auto-30R11864/global-thallium

https://www.marketintelligencedata.com/reports/8705231/global-thallium-market-growth-2024-2030

About Durango

Durango is a natural resources company engaged in the acquisition and exploration of mineral properties in Canada. The Company's holdings currently include a 100% interest in a strategically located group of properties in the Babine Copper-Gold Porphyry District, British Columbia, claims near the Troilus Gold Camp, claims in the Nemaska Camp known for lithium, other critical metals, and high-grade polymetallic nickel copper PGM, as well as claims in the Windfall Lake Gold Camp of Québec.

For further information on Durango, please visit <u>www.durangoresourcesinc.com</u> and <u>www.sedar.com</u>.

Marcy Kiesman, CEO Telephone: 604.428.2900 or 604.339.2243 Email: <u>durangoresourcesinc@gmail.com</u> Website: <u>www.durangoresourcesinc.com</u>

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Such forward-looking information reflects the Company's views with respect to future events and is subject to risks, uncertainties and assumptions, including those filed under the Company's profile on SEDAR at <u>www.sedar.com</u>. Factors that could cause actual results to differ materially from those in forward looking statements include, but are not limited to, continued availability of capital and financing and general economic, market or business conditions. The Company does not undertake to update forward-looking statements or forward-looking information, except as required by law.

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